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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,265

09/10/2004

Koichi Arishima

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26021

7590

09/14/2006

HOGAN & HARTSON L.L.P.  
1999 AVENUE OF THE STARS  
SUITE 1400  
LOS ANGELES, CA 90067

EXAMINER

WOOD, KEVIN S

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/507,265

Applicant(s)

ARISHIMA ET AL.

Examiner

Kevin S. Wood

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2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **FINAL REJECTION**

### ***Response to Amendment***

1. This action is responsive to the Amendment filed on 22 June 2006. Claims 1, 2, 11, 14, 15, 22 and 25 have been amended. Claims 1-25 are pending in the application.
2. Based on the Amendment to the Abstract, the objection to the Abstract has been withdrawn. The abstract no longer exceeds 150 words.
3. Based on the Amendment, the previous rejection of claims 1-14 under 35 U.S.C. 112, second paragraph, has been withdrawn.

### ***Response to Arguments***

4. Applicant's arguments filed 22 June 2006 have been fully considered but they are not persuasive. The examiner has thoroughly reviewed the Applicant's arguments but firmly believes the cited reference(s) do not reasonably and properly meet the limitations of the claimed invention.

The Applicant's primary argument is that the Bernstein reference (U.S. Patent No. 6,509,547) does not disclose that the index of absorption of the coating material is higher than the index of absorption of the fiber core material at the wavelength of the laser beam. The examiner respectfully disagrees with this argument. The Bernstein reference discloses that the energy of the laser must be at a level where the protective coating is removed without damaging the fiber core. It is inherent that the method and system disclosed by the Bernstein reference would ablate the coating of an optical fiber

where the index of absorption of the coating layer is higher than the index of absorption of the core material. The applicant appears to be claiming a patentability difference over the prior art system and method, without actually claiming a step or structural difference.

Applicant's arguments with respect to claims 11-14 are directed to limitations that have not been claimed. None of these claims includes a limitation where the coating removal is being performed within a hermetically sealed chamber. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the hermetically sealed chamber) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's arguments, with respect to claims 22-24 have been fully considered and the examiner agrees that neither reference appears to specifically disclose that the coating removal occurs in a hermetically sealed chamber. However, the examiner believes it to be obvious to one having ordinary skill in the art that the process of removing a cladding in an environment where the flow of air and gases are controlled so as to prevent moisture and condensation would be performed in a hermetically sealed environment.

Applicant's arguments with respect to claim 25 are directed to limitations that have not been claimed. This claim does not include a limitation of a hermetically sealed chamber. In response to applicant's argument that the references fail to show certain

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features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the hermetically sealed chamber) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the phrase "laser beam a wavelength whose an index of absorption". It appears as if there has been a typographical error. For examination purposes only, it will be assumed that it was intended to state that the index of absorption of the coating material is higher than the index of absorption of the fiber core material at the wavelength of the laser beam.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-10 and 15-21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,509,547 to Bernstein et al.

Referring to claim 1, the Bernstein et al. reference discloses a method for manufacturing a bared optical fiber in which a laser beam is applied to a coated optical fiber. The Bernstein et al. reference discloses that laser beam energy (10) is directed onto an optical fiber to ablate or remove the protective layers or coatings without damaging the bared optical fiber. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 2, the Bernstein et al. reference discloses a method for manufacturing a bared optical fiber in which a laser beam is applied to a coated optical fiber. The Bernstein et al. reference discloses that laser beam energy (10) is directed onto an optical fiber to ablate or remove the protective layers or coatings without damaging the bared optical fiber. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 3, the Bernstein et al. reference discloses the laser beam (10) is collected in the shape of a line and is applied to the coated optical fiber (12) in an axial direction of the coated optical fiber or in a direction crossing the axial direction. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 4, the Bernstein et al. reference discloses the laser beams (10) are applied from different directions. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 5, the Bernstein et al. reference discloses the laser beam (10) is applied to the coated optical fiber (12) while the laser beam is being moved in an axial direction of the coated optical fiber or in a direction crossing the axial direction. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 6, the Bernstein et al. reference discloses the laser beams (10) are applied to the same portion of the optical fiber (12) at the same time. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 7, the Bernstein et al. reference discloses the optical fiber (30) may be a multi fiber. See Fig. 4 of the invention along with their respective portions of the invention.

Referring to claims 8-10, the Bernstein et al. reference discloses the laser may be a CO<sub>2</sub> laser, excimer laser, a YAG laser or any other laser source. See col. 4, lines 1-3 of the reference.

Referring to claim 15, the Bernstein et al. reference discloses device for manufacturing a bared optical fiber in which a laser applying part applies laser beams (10) onto a coated optical fiber (12) to ablate or remove the protective layers or coatings without damaging the bared optical fiber. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 16, the Bernstein et al. reference discloses the laser beam (10) is collected in the shape of a line and is applied to the coated optical fiber (12) in an axial direction of the coated optical fiber or in a direction crossing the axial direction. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 17, the Bernstein et al. reference discloses the laser beams (10) are applied from different directions. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 18, the Bernstein et al. reference discloses the laser beam (10) is applied to the coated optical fiber (12) while the laser beam is being moved in an axial direction of the coated optical fiber or in a direction crossing the axial direction. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 19, the Bernstein et al. reference discloses the laser beams (10) are applied to the same portion of the optical fiber (12) at the same time. See Fig. 1-10 of the invention along with their respective portions of the invention.

Referring to claim 20, the Bernstein et al. reference discloses the optical fiber (30) may be a multi fiber. See Fig. 4 of the invention along with their respective portions of the invention.

Referring to claims 21, the Bernstein et al. reference discloses the laser may be a CO<sub>2</sub> laser, excimer laser, a YAG laser or any other laser source. See col. 4, lines 1-3 of the reference.



***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 11-14 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,509,547 to Bernstein et al.

Referring to claims 11-14 and 22-25, the Bernstein et al. reference does not appear to specifically disclose an inert gas applied to the applied to the portion of the optical fiber to which the laser beam is directed in order to exhaust the gas generated when the laser beam is applied. The Lawton et al. reference discloses an optical fiber coating method and system that utilizes the flow of dry air or another gas across the area of the fiber where the coating is being removed for the purpose of preventing

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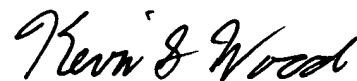
moisture condensation or contamination. Since the Bernstein et al. reference and the Lawton et al. reference are both from the same field of endeavor, the purpose disclosed by Lawton et al. would have been recognized within the pertinent art of the Bernstein et al. reference. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize an inert gas flow, such as dry air, directed to the area of the optical fiber where the coating is being removed for the purpose of removing moisture, condensation, and/or other gases which cause unwanted contamination within the system. It would be obvious to one having ordinary skill in view the teaching of the Lawton et al. reference to utilize select the purge flow material on the basis of its suitability to remove the contaminate produced during the process.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Wood whose telephone number is (571) 272-2364. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B. Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kevin S. Wood  
Patent Examiner

